

Master Planning Process

District residents played a significant role in the development of the Bicycle Master Plan. The Bicycle Advisory Council, appointed by the District Council, provided guidance throughout the process at bi-monthly meetings. The BAC established the vision and goals and worked with DDOT to create and refine the Plan. More than 150 citizens were involved in ward-based bicycle rides and workshops. They provided comments on survey forms, on maps, through the Plan website, and at BAC meetings. Citizens suggested bike facility, route, and policy recommendations for the Plan. Over the course of this study, more than 1,000 citizen comments were considered in the preparation of this Plan.



Participants at one of the 2003 public workshops.

The following is a timeline of public input opportunities for this Plan:

November 2002 to January 2005:

Bicycle Advisory Council meetings, bi-monthly

December 2002 to January 2005:

Website online with Plan information and feedback opportunities

May 2003:

Survey forms distributed at Bike to Work Day

April 2003 to July 2003:

Series of public rides in each Ward, followed by public workshops

March 2004:

Draft Plan posted on website for public review

May 2004:

Public Open House to review Draft Plan

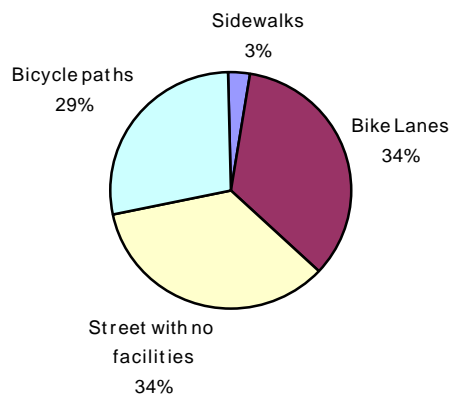
Survey Results

Informal surveys were given to interested District residents online, at Bike to Work Day, and at ward-based workshops in Summer 2003. 258 were completed. Most survey respondents were experienced with bicycling in the District*.

- Preferred facilities for bicycling:
 - Bike lanes: 34 percent
 - Street with no facilities: 34 percent
 - Bicycle paths: 29 percent
 - Sidewalks: 3 percent
- 59 percent recommended providing bikeway facilities as the best way to encourage bicycling in the District. The second and third most popular recommendations were enforcing laws applying to motorists (8 percent) and reducing street traffic (8 percent).
- 152 out of the 258 respondents (59 percent) had been involved in some type of crash.

*47% of surveys were submitted online, 38% at Bike to Work Day, 13% at ward meetings, and 2% by mail. The most common characteristics of survey respondents were: male (66%), between 30 and 39 years old (40%), and used their bike at least 5 days per week (40%).

Preferred Facilities for Bicycling



Workshop and survey feedback

Public feedback was obtained through ward-based workshops, e-mail comments, and an informal survey. The survey was distributed online, at Bike to Work Day, and at the ward-based workshops. A total of 258 survey responses were received.

In general, survey and workshop participants felt that streets with bike lanes, neighborhood streets with light traffic, and bridges with wide sidewalks are good places to bicycle. Poor places to bicycle are downtown streets, major thoroughfares between downtown and the neighborhoods, and streets with poor pavement quality.

Many participants felt that streets without bike facilities are difficult places to bicycle. Approximately 60 percent of respondents recommended providing more facilities, such as bike lanes and bike paths. Others emphasized improving access to trails, posting better bicycle signage, increasing education for motor vehicle drivers and bicyclists, and providing more stringent enforcement of traffic laws.

See Appendix A for a more detailed summary of the Bicycle Master Plan public review process, and Appendix B for an example survey form.

Geographic Information Systems Data

Objective data were also collected to inform Plan recommendations. The following data were analyzed with Geographic Information Systems (GIS):

- Bicycle crash locations from 1997 to 2002
- Bicycle-oriented destinations, such as parks, Metrorail stations, community centers, schools, universities, and tourist destinations.
- Roadway locations and characteristics

Roadway Inventory and Bicycle Level of Service Analysis

Conducting a comprehensive roadway inventory was an important component of the background analysis. Field measurements were taken on 406 miles of major collector and arterial streets in the District in early 2003. This accounts for about 45 percent of all DC streets. Roadway lane and shoulder width, speed limit, pavement condition, and on-street parking data were collected and used in the scientifically-calibrated Bicycle Level of Service (Bicycle LOS) Model to evaluate the comfort of bicyclists on roadway segments. The results are shown in Map 3.

Analysis found that about 32 percent of the study network received above average grades of A, B, or C on an A (best) to F (worst) grading scale. Streets with lower traffic volumes and bicycle lanes tended to have the highest Bicycle LOS grades. Most of the downtown streets and major arteries between downtown and the suburbs had grades of D or lower. Roughly 700 miles of streets were not evaluated. These were either local streets where conditions tend to already be good for bicycling (Bicycle LOS A or B) or limited access roads (freeways). See Appendix C for a more detailed description of the Bicycle LOS methodology and analysis results.

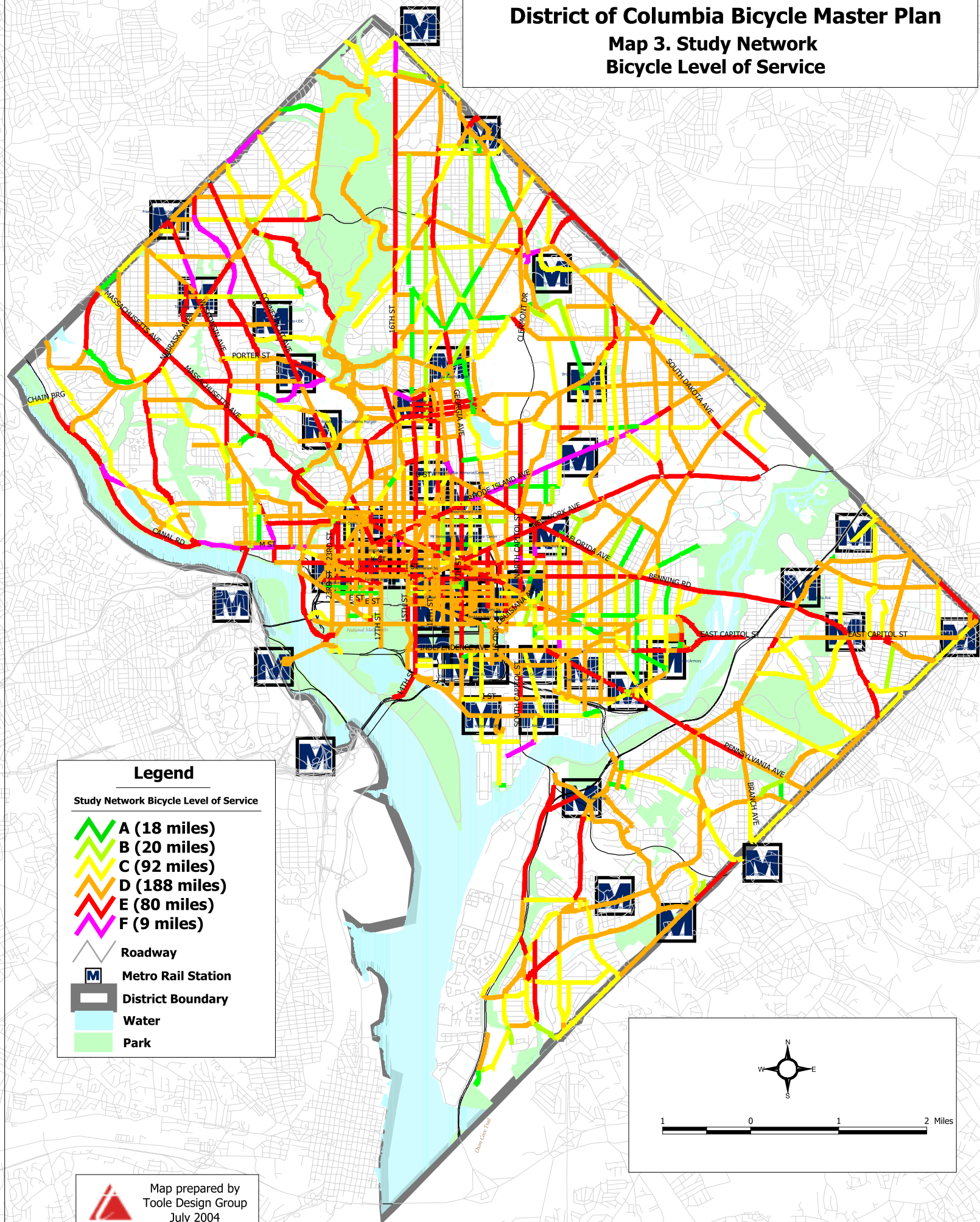
Bicycle Level of Service Summary		
Bicycle Level of Service	Miles	% of Miles with BLOS
A	17.8	4.4%
B	19.9	4.9%
C	91.7	22.5%
D	188.1	46.2%
E	80.5	19.8%
F	8.9	2.2%
Total	406.9	100.0%
Not Evaluated	745.4	

NOTE: 745 miles of DC roadways were not evaluated. These were either local streets where conditions tend to already be good for bicycling or limited access roads (freeways).

Bicycle Level of Service results were one of several sources of information used to select the bicycle route network. Specifically, routes with a Level of Service D or above, or with the potential to be improved to this level, were selected. The Bicycle Level of Service model and associated roadway inventory were also used to prioritize street improvements and identify potential for striping bike lanes and making other bicycle improvements.

District of Columbia Bicycle Master Plan

Map 3. Study Network Bicycle Level of Service



Goals and Core Recommendations

Fourteen core recommendations and other supporting recommendations will be pursued to improve bicycle transportation in the District of Columbia. The core recommendations are listed in three goal areas:

Goal 1: More and Better Bicycle Facilities

Recommendation 1.1.

Improve and expand the bike route system and provide functional and distinctive signs for the system.

Recommendation 1.2.

Provide bike facilities on roadways.

Recommendation 1.3. Complete ongoing trail development and improvement projects.

Recommendation 1.4.

Improve bridge access for bicyclists.

Recommendation 1.5.

Provide bicycle parking in public space.

Recommendation 1.6.

Encourage bicycle parking in private space.

Goal 2: More Bicycle-Friendly Policies

Recommendation 2.1.

Update District of Columbia laws, regulations and policy documents to address bicycle accommodation.

Recommendation 2.2.

Provide training to District staff.

Recommendation 2.3.

Review District of Columbia projects to ensure they provide bicycle accommodation.

Vision Statement

"The District of Columbia will be a world-class bicycling city that offers a safe and convenient network of bikeways for all types of trips."

Goal 3: More Bicycle-related Education, Promotion, and Enforcement

Recommendation 3.1.

Educate motorists about safe operating behavior around bicyclists.

Recommendation 3.2.

Educate bicyclists about safe bicycling.

Recommendation 3.3. Enforce traffic laws related to bicycling.

Recommendation 3.4.

Establish a Youth Bicycle and Pedestrian Safety Education Program.

Recommendation 3.5.

Distribute the District of Columbia Bicycle Map to a wide audience.

Section II provides additional details about the goals, core recommendations and supporting recommendations. Section III includes a table with the partners, timeframe, and milestones for implementation of the recommendations.

Bicycle Route Network

The Proposed Bicycle Facilities Map (see folded insert) identifies the arterial network for bicycling in the city, the Bicycle Route Network. This Network includes routes where facilities can be added within the next five to ten years.

While some streets in the Bicycle Route Network have poor bicycling conditions today, they can be converted to high quality bike facilities through a stand-alone project or as part of a future road reconstruction project. All routes in the network should have facilities that provide a visible indication that they are a bikeway.

Background information used to select the Bicycle Route Network included:

- Existing and planned bike lanes
- Existing and proposed bike path locations
- Existing signed bike routes
- Historic bike routes (1975 District of Columbia Bikeway Planning Study, 1987 Bike Route Network, 1995 Metropolitan Washington Council of Governments (MWCOG) Bicycle Plan, 1998 ADC Washington D.C. Regional Bike Map)
- Bicycle Level of Service (BLOS) analysis
- Locations of major destinations for bicycling, such as parks and Metro stations
- Extensive fieldwork
- Public input from website, survey, and workshop maps and comments
- BAC and DDOT staff input

Basic Principles of the Bicycle Route Network

- All streets in the District of Columbia should accommodate bicyclists; however, the bicycle network will provide an arterial network for cycling in the city.
- All bicycle network routes should be developed with facilities that provide a visible indication that they are a bikeway (bike lanes or signs).
- All District residents will live within ½ mile of a bicycle route or trail.
- The bicycle route network will provide connectivity within and between:
 - downtown and other employment centers
 - residential neighborhoods
 - parks and recreational facilities
 - schools and universities
 - adjacent jurisdictions
 - transit

Milestones for Implementation

There are three major milestones for measuring long-term progress on the Plan:

1) 50 miles of DC streets will have better Bicycle Level of Service ratings by 2010 and 100 miles will have better Bicycle Level of Service ratings by 2015.

2) The proportion of bicycle trips will increase from about 1 percent of all trips in 2000 to at least 3 percent in 2010 and 5 percent of all trips in the District of Columbia by 2015.

3) The rate of bicycle collisions with motor vehicles will decrease from 26 reported bike crashes per 1 million bike trips in 2000 to 20 per 1 million in 2010 to 15 per 1 million in 2020.

District of Columbia Planning Context

The recommendations of this Bicycle Master Plan help achieve the goals set forth in a variety of other District of Columbia and regional plans. The following plans either lend support to the objectives of this Plan, or otherwise relate to the goals and objectives herein. Coordination with the development and implementation of these plans is important.

National Capital and Regional Plans

- *Extending the Legacy: Planning America's Capital for the 21st Century* (National Capital Planning Commission, 1997): The Legacy Plan calls for Washington to become a "national model of enlightened urban transportation." Obtrusive highways and bridges should be removed, pedestrian and bicycle access should be provided on major bridges, and the District's waterfront should be developed.
- *Transportation Improvement Program (TIP)* (National Capital Region Transportation Planning Board, updated annually): This is a listing of the federally funded transportation projects, including bicycle and trail projects. A project must be in the TIP to receive federal funding.
- *Constrained Long Range Plan (CLRP)* (Metropolitan Washington Council of Governments, updated every 3 years): The CLRP identifies major capital improvements, studies, actions and strategies that the region proposes to carry out in a 20-year period. Specific regional bicycle projects are recommended.

District of Columbia Plans

- *District of Columbia Comprehensive Plan* (1999): Transportation is specifically referenced in Chapter 5, the Transportation Element, Chapter 9, the Downtown Plan Element, and Chapters 11 through 19, the Ward Plan Elements. The current document is limited in its guidance and support for non-motorized modes of travel. At present, the DC Office of Planning is leading a process to revise and update the Comprehensive Plan. This process offers an opportunity to strengthen the Comprehensive Plan with regard to bicycle transportation.
- *Strategic Transportation Plan for District of Columbia/State Long Range Transportation Plan (LRTP)* (1997): This plan emphasizes providing a multi-modal transportation system, including a "world-class bicycle transportation network". The Action Plan (Action Item 7.17) calls for the development of District-wide "bicycle spine network," to connect existing, dedicated bicycle paths with one another and with new paths and dedicated bicycle lanes. The District is currently updating the LRTP, which includes a multi-modal analysis of 27 roadway corridors. The LRTP update provides an opportunity to update and expand upon the recommendations for bicycle facilities and policies.
- *Capital Improvement Plan (CIP)* (updated annually): The CIP is a comprehensive, six-year plan for the development, modernization or replacement of city-owned facilities and infrastructure. It includes street and bridge projects.

